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EXAMINER	
HOEY, BETSEY MORRISON	
ART UNIT	**PAPER NUMBER**
1724	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/809,188	NICOLIA ET AL.	
	Examiner	Art Unit	
	HOEY, BETSEY	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-11,15,18,22-31,35-41 and 43-53* is/are rejected.

7)☒ Claim(s) *8,12-14,16,17,19-21,32-34,42* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7, 23-26, 29, 35, 36, 51 and 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 7, "the grease trap tank pump" lacks antecedent basis; it appears that this claim should depend on claim 9 rather than claim 6. In claim 23, "the passageway" lacks antecedent basis; it appears that this term should be replaced with "the channel" as recited in claim 18. In claim 29, "the water" lacks antecedent basis; it appears that this term should be replaced with "the other effluent" as recited in claim 27. In claims 35 and 51, "the grease bag" lacks antecedent basis. Claims 24-26 are rejected because the depend on rejected claim 23. Claims 36 and 52 rejected because they depend on rejected claims 35 and 51, respectively.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,705,055 to Holloway, Jr. et al. (see Figures; columns 2-4). Referring to Figure 2, Holloway, Jr. et al. teach an apparatus for recovering grease from a grease separator comprising a grease separation tank 12, having walls and bottom connected thereto; an inlet 28; an outlet 70; a wall 40 positioned between the inlet and outlet,

which extends downwardly across the tank and has a passageway 42 at the tank bottom which allows effluent to pass but retains grease in separation chamber 50, wherein chamber 50 is between the inlet 28 and wall 40; and an outflow conduit 116, which is connected with a wall of chamber 50 and extends outside of chamber 50, wherein the port in the wall of chamber 50 connected to conduit 116 is shown to have its lower end above the lower ends of inlet 28 and outlet 70. The tank 12, inlet 28, outlet 70, wall 40, chamber 50, and conduit 116, shown in Figure 2 of Holloway, Jr. et al., are patentably indistinguishable from the grease trap tank, inlet, outlet, outlet grease baffle, grease chamber, and discharge portal recited in claim 1, respectively. The apparatus of Holloway, Jr. et al. also comprises an inlet baffle 80, which directs fluid entering tank 12 toward the bottom of the tank. The apparatus of Holloway, Jr. et al. also comprises heaters 122 and 124 to heat the effluent to a temperature greater than the temperature at which the grease in the effluent solidifies.

5. Claim 27 is rejected under 35 U.S.C. 102(b) as being anticipated by Holloway, Jr. et al. (see above). Holloway, Jr. et al. teach a system that is operated such that effluent containing grease is introduced to an apparatus having an inlet, outlet, and walls as described above; grease is separated from the effluent by floating on the effluent in chamber 50 (see Figure 2); grease is removed from the effluent by conduit 112 when the grease reaches a certain level in the chamber; and grease is directed out of chamber 50 into a reclaim container and disposable liner.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 5, 6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holloway, Jr. et al. (see above). Holloway, Jr. et al. disclose the apparatus described above. The apparatus of Holloway, Jr. et al. comprises a reclaim container having a disposable liner 214, which receives grease from an outlet hose 200 connected with outlet conduit 116 via grease pump 110. The liner 214 is structurally capable of holding an enzyme, as recited in claim 10. The claims differ from Holloway, Jr. et al. by reciting a container adjacent the grease trap tank (claim 5), a valve connected with the discharge portal (claim 6), or secondary tank adjacent the grease tank (claim 10).

It is submitted that while the container and liner 214 of Holloway, Jr. et al. is not shown in the figures in a location in relation to tank 12, one of ordinary skill in the art of grease traps would have been motivated to place the container and liner adjacent to the tank, next to wall 40 and behind wall 58 (see Figure 1), in order to provide close proximity to the outlet conduit 116 and to minimize the length required for hose 200. It would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have placed the container with disposable liner of Holloway, Jr. et al., which is patentably indistinguishable from a replaceable container or secondary tank as recited in the instant claims, adjacent to the grease tank, in order to provide convenience for one making and using the apparatus of Holloway, Jr. et al., absent a sufficient showing of unexpected results.

It is further submitted that while Holloway, Jr. et al. do not show whether or not the outlet conduit for grease comprises a valve, valves are commonly used in pumping system conduits for preventing backflow of fluid to the pump when the pump is not in operation. Therefore, it would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have included a valve in the outlet conduit of Holloway, Jr. et al., in order to prevent the backflow of grease to grease pump 110 when the pump is off.

8. Claims 3, 18 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holloway, Jr. et al. in view of U.S. Patent No. 4,113,617 to Bereskin et al. (see Figures 1 and 2). Holloway, Jr. et al. disclose the apparatus described above. The apparatus of Holloway, Jr. et al. comprises baffles 92 and 94, which are located between inlet baffle 80 and wall 40, which extend across the tank at an elevation spaced from the tank bottom, and which provide a channel with a tortuous path between inlet 28 and outlet 70. The channel between baffles 92 and 94 are shown to be approximately equal throughout the channel, and are shown to have a height within the ranges recited in claims 24 and 25. The claims differ from Holloway, Jr. et al. by reciting a screen filter between the inlet and tank to remove solids (claim 3), a baffle extending upwardly from the tank bottom (claim 18), an intermediate baffle spaced a certain distance from the inlet side of the tank (claim 22), and a specific baffle height (claim 26).

Bereskin et al. disclose a grease separator comprising an inlet, outlet, and baffles arranged in a similar fashion to the apparatus of Holloway, Jr. et al. The separator of Berenskin et al. comprises a solids retention box between the inlet and inlet chamber of

the separator, which is perforated or foraminous and made to trap solids, and is therefore patentably indistinguishable from a screen filter for removing solids as recited in claim 3. It would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have included a foraminous solids separator in the apparatus of Holloway, Jr. et al., in view of the separator of Bereskin et al., when the apparatus is used in applications such as food processing facilities, which is suggested by Holloway, Jr. et al., in order to remove food particles from the incoming effluent.

The separator of Berenskin et al. also comprises 18 and 19, wherein baffle 19 extends upwardly from the bottom of the separator and is located adjacent baffle 18, such that entering effluent is deflected upwardly into a collection chamber. It would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have made the baffles of Holloway, Jr. et al. such that a baffle extends upwardly from the bottom of the tank as shown by the separator of Bereskin et al., in order to assist in directing incoming effluent upwardly, as is desired by Holloway, Jr. et al. (see column 2, lines 54-56). It is submitted that the one of ordinary skill in the art, at the time the present invention was made, would have been motivated, when making the separators of Holloway, Jr. et al. or Bereskin et al., to have located the baffles respective to the inlet side of the separators, and to design the baffle heights, where and how the greatest efficiency of operation is achieved. Therefore, it would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have made the separator of Holloway, Jr. et al. or Bereskin et al.

such that the baffles are located as recited in instant claim 22, and such that the baffle height is as recited in instant claim 26, depending on the waste effluent being treated and results desired, absent a sufficient showing of unexpected results.

9. Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holloway, Jr. et al. (see above) in view of U.S. Patent No. 4,940,539 to Weber (column 3). Holloway, Jr. et al. disclose the apparatus described above. The claims differ from Holloway, Jr. et al. by reciting a metering pump for introducing an enzyme solution to a secondary tank (claim 11) and a valve connected with the discharge portal and grease trap tank pump (claim 15).

Weber discloses a grease trap apparatus comprising an inlet, outlet, compartments and heating element, as does Holloway, Jr. et al. The apparatus of Weber also comprises a metering pump for feeding an enzyme, controlled by a timer, to the waste water being treated, in order to act on grease and fats and reduce the BOD of the waste water. It would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have made the apparatus of Holloway, Jr. et al. such that a metering pump controls the release of enzyme into the reclaim container of Holloway, Jr. et al., in view of Weber, in order to reduce the BOD of collected grease effluent.

It is further submitted that while Holloway, Jr. et al. do not show whether or not the outlet conduit for grease comprises a valve, valves are commonly used in pumping system conduits for preventing backflow of fluid to the pump when the pump is not in operation. Therefore, it would have been obvious to one of ordinary skill in the art of

grease traps, at the time the present invention was made, to have included a valve in the outlet conduit of Holloway, Jr. et al., in order to prevent the backflow of grease to grease pump 110 when the pump is off.

10. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holloway, Jr. et al. (see above). Holloway, Jr. et al. disclose the method recited above. The claim differs from Holloway, Jr. et al. by reciting that the replaceable container is adjacent the grease trap tank (claim 5), and that grease is discharge by opening a valve to allow grease to enter the discharge portal.

It is submitted that while the container and liner 214 of Holloway, Jr. et al. is not shown in the figures in a location in relation to tank 12, one of ordinary skill in the art of grease traps would have been motivated to place the container and liner adjacent to the tank, next to wall 40 and behind wall 58 (see Figure 1), in order to provide close proximity to the outlet conduit 116 and to minimize the length required for hose 200. It would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have placed the container with disposable liner of Holloway, Jr. et al., which is patentably indistinguishable from a replaceable container or secondary tank as recited in the instant claims, adjacent to the grease tank, in order to provide convenience for one making and using the apparatus of Holloway, Jr. et al., absent a sufficient showing of unexpected results.

It is further submitted that while Holloway, Jr. et al. do not specifically show a valve being opened to allow discharge of grease, valves are commonly used to protect pumps from possible damage, and one of ordinary skill in the art of grease traps would

have been motivated to include opening a valve in the step of discharging grease, order to prevent grease from traveling to the pump when it is not running and fouling the pump. Therefore, it would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have included a valve in Holloway, Jr. et al., in order to protect the grease pump 110.

11. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holloway, Jr. et al. in view of Weber (see above). Holloway, Jr. et al. disclose the apparatus described above. The claims differ from Holloway, Jr. et al. by reciting a secondary tank retaining an enzyme (claim 30), and a metering pump for introducing an enzyme solution to the secondary tank (claim 31).

Weber discloses a grease trap apparatus comprising an inlet, outlet, compartments and heating element, as does Holloway, Jr. et al. The apparatus of Weber also comprises a metering pump for feeding an enzyme, controlled by a timer, to the waste water being treated, in order to act on grease and fats and reduce the BOD of the waste water. It would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have made the apparatus of Holloway, Jr. et al. such that a metering pump controls the release of enzyme into the reclaim container of Holloway, Jr. et al., in view of Weber, in order to reduce the BOD of collected grease effluent.

12. Claims 37-41 and 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holloway, Jr. et al. (see above). Holloway, Jr. et al. disclose the apparatus recited above. The suction conduit 112 and grease depth signal probe 140 of

Holloway, Jr. et al. are patentably indistinguishable from the discharge portal and level sensor, respectively, recited in claim 37. The probe 140 of Holloway, Jr. et al. is shown to be at the height recited in instant claim 43. Holloway, Jr. et al. discloses an optional level sensor below the level of probe 140, for sensing the quantity of grease in the tank and triggering an alarm as needed. The claims differ from Holloway, Jr. et al. by reciting that the discharge portal has a valve therein (claim 37), that the sensors are of a specific type (claims 38, 39 and 46), and that the second sensor is located at a certain height (claim 45).

It is submitted that while Holloway, Jr. et al. do not specifically show a valve in conduit 112, valves are commonly used to protect pumps from possible damage, and one of ordinary skill in the art of grease traps would have been motivated to include a valve in conduit 112, which is to be opened only when probe 140 signals the pump to be operated, in order to prevent grease from traveling to the pump when it is not running and fouling the pump. Therefore, it would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have included a valve in conduit 112 of Holloway, Jr. et al., in order to protect the grease pump 110.

It is also submitted that while the specific type of sensors used by Holloway, Jr. et al. is not mentioned, it would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have used conventional types of sensors, such as those recited in the instant claims. It is further submitted that it would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have located the optional sensor used by Holloway,

Jr. et al. at the location recited in claim 46, in order to prevent too much grease to accumulate in the apparatus of Holloway, Jr. et al., as described in column 7.

13. Claims 48-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holloway, Jr. et al. (see above). Holloway, Jr. et al. disclose the method of operating an apparatus as described above. The reclaim container of Holloway, Jr. et al. may include a level sensor (see column 6), which is operated as recited in claim 51. The claims differ from Holloway, Jr. et al. by reciting opening a valve to discharge grease (claim 48), and that this valve is closed when the level of other effluent rises to the first level sensor (claim 53).

It is submitted that while Holloway, Jr. et al. do not specifically show a valve in conduit 112, valves are commonly used to protect pumps from possible damage, and one of ordinary skill in the art of grease traps would have been motivated to include a valve in conduit 112, which is to be opened when probe 140 signals the pump to be operated and closed otherwise, in order to prevent grease from traveling to the pump when it is not running and fouling the pump. Therefore, it would have been obvious to one of ordinary skill in the art of grease traps, at the time the present invention was made, to have included a valve in conduit 112 of Holloway, Jr. et al., which is opened to allow removal of grease when signaled to do so, and is closed upon removal of the grease, in order to protect the grease pump 110.

14. Claims 8, 12-14, 16, 17, 19-21, 32-34 and 42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Claims 35 and 36 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

16. The following is a statement of reasons for the indication of allowable subject matter:

Claim 7 would be allowed if rewritten in independent form, including all of the limitations of claims 1, 5 and 6, and if rewritten to overcome the 112 rejection, because the prior art of record fails to teach, disclose, or fairly suggest a grease removal system comprising a scale supporting a replaceable container and a sensor capable of performing the function recited in the claim, in combination with the other limitations of claims 1, 5 and 6.

Claim 8 would be allowed if rewritten in independent form, including all of the limitations of claims 1, 5 and 6, because the prior art of record fails to teach, disclose, or fairly suggest a grease removal system comprising a quick connect coupling between a discharge portal and replaceable container, in combination with all of the other limitations of claims 1, 5 and 6.

Claims 12-14 would be allowed if rewritten in independent form, including all of the limitations of claims 1 and 10, because the prior art of record fails to teach, disclose, or fairly suggest a grease removal system comprising a discharge portal that is a spillway, wherein grease can pass over the spillway into a secondary tank, in combination with all of the other limitations of claims 1 and 10.

Claims 16 and 17 would be allowed if rewritten in independent form, including all of the limitations of claims 1, 10 and 15, because the prior art of record fails to teach,

disclose, or fairly suggest a grease removal system comprising a secondary tank pump connecting an outlet from a secondary tank to the grease trap tank inlet, in combination with all of the other limitations of claims 1, 10 and 15.

Claims 19-21 would be allowed if rewritten in independent form, including all of the limitations of claims 1 and 10, because the prior art of record fails to teach, disclose, or fairly suggest a grease removal system comprising a solids baffle spaced on each side of an intermediate grease baffle, in combination with all of the other limitations of claims 1 and 18.

Claims 32-34 would be allowed if rewritten in independent form, including all of the limitations of claims 27 and 30, because the prior art of record fails to teach, disclose, or fairly suggest a grease removal method comprising discharging grease through a discharge portal that is a spillway, wherein grease can pass over the spillway into a secondary tank, in combination with all of the other limitations of claims 27 and 30.

Claims 35 and 36 would be allowed if rewritten to overcome the 112 rejection, because the prior art of record fails to teach, disclose, or fairly suggest a grease removal system for removing grease from a grease trap comprising a replaceable container for collecting grease extracted from the grease tank, and a quick connect coupling between a discharge portal extending from a grease trap tank and the replaceable container, in combination with all of the other limitations of claim 35.

Claim 42 would be allowed if rewritten in independent form, including all of the limitations of claims 37, 40 and 41 because the prior art of record fails to teach,

disclose, or fairly suggest a grease removal system comprising a replaceable container including a scale, in combination with all of the other limitations of claims 37, 40 and 41.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsey Hoey whose telephone number is **(571) 272-1158**. The examiner can normally be reached on Mondays, Tuesdays, and Thursdays from 7:30-1:00 AM. The examiner's supervisor, Mr. Duane Smith, may be reached at (571) 272-1166. Any inquiry of general nature may be directed to the Group receptionist at (571) 272-0987. The centralized fax number for the Group is (703) 872-9306. The examiner Rightfax number is (571) 273-1158.

Betsey M. Hoey

BETSEY MORRISON HOEY
PRIMARY EXAMINER

August 9, 2004